

AMENDMENT

IN THE SPECIFICATION:

Please amend the specification as follows:

After the "brief description" of Figure 17 in the specification, please add the following to paragraphs:

FIGS. 18a and 18b show the invention electrode applicator including a shield element that separates the applicator handle from the electrode applicator. FIG. 18a shows the electrode applicator in perspective view. FIG. 18b shows an exploded lateral cross-section of the invention electrode applicator.

FIG. 19 shows a support member of the invention apparatus having a plurality of needle electrodes mounted thereon for insertion into tissue.

mixture of variable necrotic cells in D+E- group (a). Histology of samples from tumor site after 120 days show complete absence of tumor cells (c).

[0027] FIGS. 15a and 15b show the survival of MCF-7 (breast cancer) cells when exposed to low voltage and high voltage EPT, respectively.

[0028] FIGS. 16a and 16b show the survival of MCF-7 cells when exposed to low voltage and high voltage EPT, respectively, with bleomycin.

[0029] FIG 17 shows the effect of non-pulsed and pulsed MCF-7 cells with different concentration of bleomycin and the MedPulser™.

[0030] FIGS 18a and 18b show the invention electrode applicator including a shield element that separates the applicator handle from the electrode applicator. FIG. 18a shows the electrode applicator in perspective view. FIG. 18b shows an exploded lateral cross-section of the invention electrode applicator.

[0031] FIG. 19 shows a support member of the invention apparatus having a plurality of needle electrodes mounted thereon for insertion into tissue.

[0032] Like reference numbers and designations in the various drawings indicate like elements.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Overview

[0033] The invention provides an apparatus and a method for the therapeutic application of electroporation. The method includes injection of a chemotherapeutic agent or molecule and electroporation of the agent or molecule into a tumor. In particular, an agent or molecule is injected into tissue and voltage pulses are applied between "needle" electrodes disposed in the tissue, thus applying electric fields to cells of the tissue. The needle electrode assemblies described below enable the *in vitro* or *in vivo* positioning of electrodes in or adjacent to subsurface tumors or other tissue. Such therapeutic treatment is called electroporation therapy (EPT), also called electrochemotherapy. While the focus of the description below is EPT, the invention may be applied to other treatments, such as gene therapy of certain organs of the body.

[0034] For a general discussion of EPT, see co-pending application Ser. No. 08/537,265, filed on Sep. 29, 1995, which is a continuation-in-part of application Ser. No. 08/467,566 filed on Jun. 6, 1995, which is a continuation-in-part of application Ser. No. 08/042,039 filed on Apr. 1, 1993 now abandoned, all of which are incorporated herein by reference.